

REMARKS

Claims 1-8, 16-19 and 52-77 are pending in the application. Claims 52-55 are withdrawn from consideration. Claims 56-71 stand rejected. Claim 68 is amended herein to correct an informality. Claims 1-8, 16-19, and 72-77 are allowed. No new matter is introduced.

I. Rejection Under 35 U.S.C. § 103(a)

Claims 56-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Philipsson (US 2001/0007815) and Labun et al. (US 6,842,621) and further in view of Fox et al. (US 5,943,624).

II. Response to Rejection Under 35 U.S.C. § 103(a)

The combination of the Fox disclosure with the combination of Philipsson and Labun, would not result in the Applicant's claimed notification signal indicating presence of an RF-ID interrogation signal from an associated RF-ID communications module, instructing an associated wireless short-range communication module to enter into a predefined shortened session set-up operation mode for detecting paging signals addressed to said wireless short-range communication module. The combination of the Fox disclosure with the combination of Philipsson and Labun is inoperable to achieve the results of the Applicant's claimed invention.

Claim 56 defines a notification signal received from an associated RF-ID communications module upon detecting an interrogation signal by the associated RF-ID communications module. The notification signal instructs an associated wireless short-range communication module to enter a predefined shortened session set-up operation for detecting paging signals addressed to the associated wireless communication short-range communication module. Claim 56 reads as follows:

56. (Currently Amended) A method, comprising:
- a) receiving a notification signal indicating presence of an RF-ID interrogation signal from an associated RF-ID communications module in response to detecting an interrogation signal by said RF-ID communications module; and

b e) in response to the notification signal, instructing an associated wireless short-range communication module to enter into a predefined shortened session set-up operation mode for detecting paging signals addressed to said wireless short-range communication module.

The claimed invention can be advantageously used where the wireless short-range communication module is a Bluetooth module. ***

In the standard Bluetooth technology, every Bluetooth Device needs to enter to Page scan mode every 2.56 seconds without performing a Bluetooth Inquiry. However, in order to perform the Bluetooth Page, the device's address needs to be known and unless the device is previously known, Paging cannot be performed. In situations where the device address is known, it takes 1.28 seconds on average to connect with the device. By contrast, the Applicant's claimed invention provides a faster connection procedure where conventional Bluetooth device discovery is replaced with RFID communication exchange and the to-be-paged device can set the Bluetooth communication module to Page scan so that potential delays are avoided. One of the problems of Bluetooth terminals is the long time required for discovery of a Bluetooth terminal, which can be up to 10 seconds. In many applications, the device discovery time is too long and restricts the usage of Bluetooth, particularly for interactive services. The claimed invention reduces the time required to make a connection, by instructing the wireless short-range communication module to enter into a predefined shortened session set-up operation mode with the sending terminal in response to the associated RF-ID communications module receiving an RF-ID interrogation signal from the sending terminal. The associated RF-ID communications module will have transmitted to the sending terminal the address of the wireless short-range communication module. This enables the sending terminal to immediately send a paging signal and the wireless short-range communication module can immediately detect paging signals addressed to the wireless short-range communication module.

The Examiner cites the Philipsson reference for an alleged detection of an RF-ID interrogation signal in an RF-ID communications module, citing paragraph [0007], lines 3-4.

The Philipsson reference paragraph [0007] reads as follows:

[0007] Another object of the invention is to provide a mobile communication device for use in a wireless communication network, comprising an ID transponder for receiving an interrogation signal from a stationary unit and generating a respond signal to said interrogation signal, including a unique identification number of the mobile communication device for authentication in a stationary unit, and for establishing a connection with the stationary unit via a short-range radio link.

The Philipsson reference paragraph [0020] reads as follows:

[0020] The transponder 22 is adapted for receiving an interrogation signal from the point of sale terminal 12, and generating a respond signal to the interrogation signal. The signal includes a unique identification number, stored in storage means in the transponder 22, of the particular pay terminal 10. Further, the pay terminal and its microchip is adapted for establishing a connection with the point of sale terminal 12 by means of the short-range radio frequency unit 20 and its antenna 23 via the short-range radio link 13.

The Philipsson reference paragraph [0025] reads as follows:

[0025] When the point of sale terminal 12 and the particular pay terminal A are within the range of the second short-range communication link, an interrogation signal is transmitted from the point of sale terminal 12 to the pay terminal B via the second short-range communication link in step 50. The transponder 22 in the pay terminal A receives the interrogation signal in step 51. A respond signal, including a unique identification number of the pay terminal A stored in the storage means of the transponder, is generated in the microchip in step 52 and transmitted through the second communication link to the point of sale terminal 12 via its second communication unit 43 or 45 in step 53. The respond signal is received in the point of sale terminal 12 in step 54, and the identification number is separated from the signal and authenticated by the microchip 40 in step 55. If the identification number is authenticated properly, the point of sale terminal finally establishes a connection with the pay terminal A via the first short-range radio link.

The Philipsson reference fails to disclose or suggest the Applicant's claimed operation in response to the notification signal, instructing an associated wireless short-range communication module to enter into a predefined shortened session set-up operation mode for detecting paging signals addressed to said wireless short-range communication module. The Applicant's claimed invention enables the wireless short-range communication module to immediately detect paging signals addressed to the wireless short-range communication module without waiting for the wireless short-range communication module to first go through a preliminary sequence of

receiving an inquiry packet from the sending terminal and responding with an inquiry response packet containing the address of the wireless short-range communication module.

The Examiner acknowledges that Philipsson does not teach instructing a wireless short-range communication module to enter into a page scanning mode for detecting paging signals addressed to said wireless short-range communication module. However, the Examiner then alleges that Labun teaches instructing a wireless short-range communication module to enter into a page scanning mode for detecting paging signals addressed to said wireless short-range communication module (see Labun col. 9, lines 30-34).

The Labun reference at col. 9, lines 15-45 reads, in part, as follows:

Referring to FIG. 5, there is provided a timing diagram representing message flow for handovers between access points At step 516, the AP1504 sends a release message to the MS 502 and instructs the MS 502 to enter a page scan mode. At step 518, the MS 502 sends an acknowledgement message to AP1504 and confirms that it has entered the page scan mode. At step 520, the AP1504 informs the BRNC 506 that the MS 502 is released and in page scan mode. At step 522, the BRNC 506 then instructs the AP2508 to page the MS 502. The AP2508 sends a Bluetooth page to the MS 502 at step 524, and the MS 502 responds to the AP2508 at step 526. ...

Labun at column 9, lines 30-35 discloses a mobile station handover system in a Bluetooth network, wherein the access point (AP1) to which the mobile station is connected sends a specific release message over the existing Bluetooth connection to instruct the mobile station to release the connection and enter into page scanning mode to handover the connection to a second access point (AP2).

The Labun reference fails to disclose or suggest the Applicant's claimed operation in response to the notification signal indicating presence of an RF-ID interrogation signal from an associated RF-ID communications module, instructing an associated wireless short-range communication module to enter into a predefined shortened session set-up operation mode for detecting paging signals addressed to said wireless short-range communication module. The Applicant's claimed invention enables the wireless short-range communication module to immediately detect paging signals addressed to the wireless short-range communication module

without waiting for the wireless short-range communication module to first go through a preliminary sequence of receiving an inquiry packet from the sending terminal and responding with an inquiry response packet containing the address of the wireless short-range communication module.

The Examiner's rationale for combining Philipsson and Labun reads as follows:

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Labun to said device of Philipsson in order for a user to be better informed of the status of a wireless communication terminal.

However, Labun discloses a first access point (AP1) sending a handover command to a Bluetooth module in the mobile device over the Bluetooth network, which is the same network over which the mobile device will enter into a Bluetooth page scanning mode to handover the Bluetooth connection to a second access point (AP2). The combination of Philipsson and Labun would not result in the Applicant's claimed notification signal indicating presence of an RF-ID interrogation signal from an associated RF-ID communications module, instructing an associated wireless short-range communication module to enter into a predefined shortened session set-up operation mode for detecting paging signals addressed to said wireless short-range communication module. The combination of Philipsson and Labun is inoperable to achieve the results of the Applicant's claimed invention.

The Examiner acknowledges that the combination of Philipsson and Labun does not teach receiving a notification signal indicating presence of an RE-ID interrogation signal from an associated RE-ID communication module in response to detecting an interrogation signal by said RE-ID communications module. However, the Examiner then alleges that Fox teaches receiving a notification signal indicating presence of an RE-ID interrogation signal from an associated RE-ID communication module in response to detecting an interrogation signal by said RE-ID communications module (see col. 3, lines 16-22).

The Fox reference at the cited col. 3, lines 10-22 reads as follows:

Cellular telephone 10 also includes ... vibrator 50 coupled to both smartcard logic function circuitry 42 and cellular telephone function circuitry 46 for providing audible or tactile feedback to the user. Alternately, component 50 may be a piezoelectric device for providing tactile feedback via vibration to the skin. Accordingly, the smartcard function may provide feedback to the user audibly or tactually to notify the user of RF interrogation by either an audible beep from the speaker or a vibration that originates within the case.

The disclosure by Fox at col. 3, lines 16-22 is of a smart card reader that turns on the mechanical/tactile vibration signal in a cell phone case when the smart card reader is near a smart card signal source. There is no use of the tactile vibration signal to invoke a predefined shortened session set-up operation mode for detecting paging signals addressed to a wireless short-range communication module, as claimed by the Applicant.

The Examiner's rationale for making the combination reads as follows;

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Fox to the modified device of Philipsson and Labun in order to reduce signal degradation between short range REID devices.

However, the combination of the Fox disclosure with the combination of Philipsson and Labun, would not result in the Applicant's claimed notification signal indicating presence of an RF-ID interrogation signal from an associated RF-ID communications module, instructing an associated wireless short-range communication module to enter into a predefined shortened session set-up operation mode for detecting paging signals addressed to said wireless short-range communication module. The combination of the Fox disclosure with the combination of Philipsson and Labun is inoperable to achieve the results of the Applicant's claimed invention.

CONCLUSION

In view of the aforementioned amendments and remarks, Applicants believe the application is in condition for allowance. Entry of the response, allowance of the claims and passage to issue of the subject application are hereby requested.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 50-4827, Order No. Docket No. 1004289-058US (4208-4047US1).

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No 50-4827, Order No. Docket No. 1004289-058US (4208-4047US1).

Respectfully submitted,

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